

Amendments to the Claims:

Claims 8 to 11 are cancelled.

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1 to 11 (Cancelled).

12. (Previously Presented) A circuit arrangement for carrying out a method for operating a mixed-potential exhaust-gas probe for an internal combustion engine wherein exhaust gas is generated, the exhaust-gas probe including: a heatable probe ceramic; a first electrode arranged in a chamber subjected to a reference atmosphere; and, a second electrode, which detects gas molecules, and is arranged in the exhaust gas of the internal combustion engine; the method comprising the steps of: providing a pump voltage source and applying a pump voltage across the first and second electrodes so that, in the interior of the chamber, a reduced oxygen partial pressure relative to the oxygen partial pressure in the exhaust gas is adjusted by the electrochemical pumping off of the oxygen molecules and the voltage across said first and second electrodes deviating from the thermodynamic equilibrium voltage of the reaction which takes place in said exhaust-gas probe; and, measuring and evaluating the current flowing across the electrodes; the arrangement

comprising:

an inverting operational amplifier having a non-inverting  
20 input, an inverting input and a feedback loop;  
a voltage divider R2 connected to said non-inverting input;  
the exhaust-gas probe being connected to said inverting  
input;  
a reference resistor R1 arranged in said feedback loop; and,  
25 a differential amplifier which amplifies the voltage  
difference between said non-inverting input and the output of the  
operational amplifier and outputs the difference as a measurement  
signal.

13. (Previously Presented) The circuit arrangement of claim 12,  
further comprising a switching device for switching the circuit  
arrangement for the voltage polarized current measurement over to  
the circuit arrangement for current polarized voltage  
5 measurement.

14. (Previously Presented) A circuit arrangement for carrying  
out a method for operating a mixed-potential exhaust-gas probe  
for an internal combustion engine wherein exhaust gas is  
generated, the exhaust-gas probe including: a heatable probe  
5 ceramic detecting gas molecules; a first electrode mounted in a  
chamber and the first electrode being subjected to a reference  
atmosphere; and, a second electrode arranged in the exhaust gas  
of the internal combustion engine; the method including the steps  
of: providing a pump voltage source and applying a pump voltage  
10 across the first and second electrodes so that a reduced oxygen

partial pressure is adjusted relative to the oxygen partial pressure in the exhaust gas in the interior of the chamber by electrochemically pumping off the oxygen molecules; and, applying a constant current to the probe ceramic and measuring and  
15 evaluating the voltage which results between the first and second electrodes with this voltage deviating from the thermodynamic equilibrium voltage of the desired reaction which takes place in said exhaust-gas probe; the arrangement comprising:

a non-inverting operational amplifier having a non-inverting  
20 input, an inverting input and a feedback loop;

a voltage divider R2 connected to the non-inverting input;

a reference resistor R1 connected to the inverting input;

said exhaust-gas probe being arranged in said feedback loop; and,

a differential amplifier for amplifying the voltage  
25 difference at the sensor and outputting said voltage difference as a measurement signal.

15. (Previously Presented) The circuit arrangement of claim 14, further comprising a switching device for switching the circuit arrangement for the voltage polarized current measurement over to the circuit arrangement for current polarized voltage  
5 measurement.